FINAL REPORT
CONTRACT NAS5-32068
TASK 5268
P.I. - K. SCOLLICK
"SKYVIEW: INTEGRATING MULTIWAVELENGTH DIGITAL SKY DATA"

The SkyView ADP contract was awarded to develop a network facility which would allow users to extract images of the sky from a number of widely-available large-scale surveys of the sky in all wavelengths from radio through gamma-ray. All of the objectives of the contract have been substantially exceeded. The SkyView contract was written before the technology of the WorldWideWeb was widely available and the Web has greatly enhanced the ability of users to get to SkyView.

SkyView currently supports two separate interfaces: the interactive interface which provides an interactive X-display where a user can interact with an image, e.g., by manipulating the color table, after it has been retrieved, and the Web interface which uses HTML forms to allow the user to make a request for an image and have it delivered to the users Web browser. SkyView's early adoption of the Web was noted there: SkyView was nominated for two Best of the Web awards in the first year these were given out. There is also a batch interface to support building programs which talk to SkyView without user intervention.

SkyView currently generates 400-600 images per day. The original proposal had anticipated that at the end of the contract a successful system would generate up to 100 images per day. There are currently 25 surveys included in SkyView including all of the surveys in the original proposal which have come into the public domain. SkyView supports all of the major projections and coordinate systems used in the astronomical community and has clearly succeeded in its goal of providing a convenient quicklook capability for astronomical surveys.

A major unanticipated use of SkyView has been by the general public. A significant fraction of the SkyView users appear to be amatuer astronomers and other members of the public. The relative simplicity of SkyView's interfaces (particularly on the Web) allows the public to view both NASA and ground data that is normally far too arcane to be accessed by other than the professional community.

SkyView has been written primarily using IDL with some small elements in C and Perl. The software has been carefully documented and is available at the SkyView web site (http://skyview.gsfc.nasa.gov). This site includes a full distribution package with software, installation instructions and advice on how to customize SkyView to a user's site. There have been a number of parties interested in porting SkyView to their sites: the Canadian Astronomy Data Center, the Keck Telescope, the European Southern Observatory, the groups from the SAX mission in Italy and the ASCA mission in Japan.

Participants in the original SkyView proposal successfully proposed for a follow-on proposal to enhance SkyView's capabilities. This follow-on is now active.

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